

*Sastragala versicolor*, sp. n.

Head, pronotum, and corium virescent; lateral pronotal angles and apical margin of corium black; posterior marginal area of pronotum and the scutellum castaneous brown; scutellum with a large discal cordate ochraceous spot; body beneath and legs virescent or ochraceous, probably altogether virescent in fresh specimens; head with the lateral lobes transversely wrinkled; antennæ greenish ochraceous, first joint passing apex of head, second a little shorter than third, which is almost subequal to fourth, apex of fourth infuscate, fifth mutilated in type; pronotum somewhat sparingly punctate, on basal area the punctures distinctly coarser, the lateral angles somewhat longly subspinously produced and distinctly recurved; scutellum thickly punctate, the ochraceous spot impunctate, extreme apex ochraceous and impunctate; corium thickly punctate; membrane hyaline, distinctly passing the abdominal apex; apical margin of abdomen above black; rostrum slightly passing posterior coxæ; mesosternal process not passing anterior margin of prosternum nor between the intermediate coxæ posteriorly produced; abdominal spine produced between the posterior coxæ; abdomen beneath centrally longitudinally ridged.

Long. 11 mm.; exp. pronot. angl.  $7\frac{1}{2}$  mm.

*Hab.* Queensland (F. P. Dodd, Brit. Mus.).

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LXIV.—*The Generic Arrangement of the Australian Murines hitherto referred to "Mus."* By OLDFIELD THOMAS.

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THE recent separation by Mr. G. S. Miller\* of the *Mus musculus* group as a special genus, and the use of the name *Epimys* for other rats previously called *Mus*, makes it a pressing task to determine what restricted genera exist in Australia and what their names should be. For to start with calling them all *Epimys* and then later on to have to change their names again would be most inconvenient, so that an immediate revision is called for. There is also a special reason for the Australian forms being sorted, as among them occurs the type of "*Pseudomys*," a name actually

\* P. Biol. Soc. Wash. xxiii. p. 57 (1910).

earlier than *Epimys*, and until a reason could be shown for its separation from the latter, the proper generic name of all true rats from *Mus rattus* downwards would remain in doubt.

I have not as yet been able to make any observations on the characters and synonymy of the species, but have simply taken all the types and authentic specimens in the Museum and grouped them in genera. So rich, however, is the Museum collection in types that this method allocates the great majority of the described species without introducing any element of doubt as to the correct determination of species of which we do not possess typical examples.

Certain groups of Australian Muridæ have already been dealt with\*, namely those with elongate feet and those with a postero-internal cusp on the upper molars, and there now only remain the ordinary rat- and mouse-like forms without the extra cusp on the molars.

A careful examination of these shows that none of them, except the introduced *M. musculus*, are referable to true *Mus*, that about half may be retained in *Epimys*, the genus of which "*Mus rattus*" is typical, and that the other half may be referred to the specially Australian genus *Pseudomys*, which may itself be divided into four subgenera.

The characters and included species of these groups are as follows :—

#### EPIMYS, Trouess.

Size uniformly large; all Australian species being "rats" and not "mice." Pectoral mammæ believed to be always present, the formula, where known, varying from 1—2=6 to 3—3=12.

Skull strongly built, with well-marked supraorbital ridges, which generally extend back to the outer corners of the interparietal. Front edge of zygomatic plate always convex. Pterygoids as in *E. rattus*, the parapterygoid fossa deep and well defined.

Molars normal, the laminæ never specially tilted up; no cingular cusp on *m*<sup>1</sup>.

*Range.* Whole of Old World, except Madagascar and the far north.

*Type.* *E. rattus*, L.

\* Ann. & Mag. Nat. Hist. (7) xvii. p. 81 (1906); *op. cit.* (8) iii. p. 372 (1909).

## Australian and Papuan species :—

<i>arboricola</i> , Rams. (= <i>rattus</i> ).	<i>maorium</i> , Hutt.
<i>assimilis</i> , Gould.	<i>mordax</i> , Thos.
<i>browni</i> , Alst.	<i>prator</i> , Thos.
<i>colletti</i> , Thos.	<i>sordidus</i> , Gould.
<i>culmorum</i> , Thos. & Dollm.	<i>terræ-reginæ</i> , Alst.
<i>erulms</i> , Peale.	<i>tunneyi</i> , Thos.
<i>fuscipes</i> , Waterh.	<i>vellerosus</i> , Gray.
<i>gestri</i> , Thos.	<i>velutinus</i> , Thos.
<i>greyi</i> , Gray.	<i>villosissimus</i> , Waite.
<i>lutreola</i> , Gray.	<i>woodwardi</i> , Thos.
<i>manicatus</i> , Gould.	

## PSEUDOMYS, Gray.

P. Z. S. 1832, p. 39.

Size variable, mostly much smaller than in *Epimys*. Pectoral mammiæ not known to be present in any species, the formula being  $0-2=4$  in all in which it can be determined.

Skull not heavily built and quite without supraorbital ridges; the interorbital region narrow, parallel-sided, with rounded or, in a few species, squared edges. Front edge of zygomatic plate, structure of pterygoid region and of molars, varying in the different subgenera.

*Range.* Australia and Tasmania, not extending into New Guinea.

*Type.* *Pseudomys australis*, Gray.

This genus contains species of very varied skull and molar structure, and it is with some hesitation that I leave such diverse species as, for example, *P. australis* and *P. forresti* under the same generic heading. But as the characters, marked as they are in extreme cases, seem to be slighter or variable in others, I think the division of *Pseudomys* into subgenera may best serve our present purpose.

Of these there would be four, as follows :—

## 1. PSEUDOMYS, s. s.

Size large. General form of skull inclining towards that of *Conilurus* and *Leporillus* by the flat or even concave condition of the posterior nasal region and the bold projection of the anterior part of the zygomata. Front edge of zygomatic plate concave, with a projecting point above, as in *Notomys*, though not so strongly marked. Palatal foramina large. Pterygoid region showing an intermediate condition between the normal one and the flattened state described below under

*Leggadina*. Mesopterygoid fossa broad in front, narrowing backwards.

Molars high, with heavy cusps, more or less resembling those of *Leporillus*. No antero-internal secondary cingular cusp on  $m^1$  (except as an unusual abnormality).

Type. *Ps. australis*, Gray.

Other species :—

*Ps. auritus*, sp. n. (see succeeding paper).

*Ps. higginsii*, Trouess.

*Ps. lineolatus*, Gould.

*Ps. murinus*, Gould \* (probably = *australis*).

*Ps. shortridgei*, Thos.

## 2. THETOMYS, subg. n.

Size medium. Form of skull more normal, but the anterior plate of zygoma still concave in front. Palatal foramina fairly long, but not widely open. Pterygoid region normally murine.

Molars fairly normal, but a distinct antero-internal cingular cusp present on  $m^1$ . Molar laminæ not specially tilted up.

Type. *Pseudomys* (*Thetomys*) *nanus* (*Mus nanus*, Gould).

Other species :—

*Ps. ferculinus*, Thos.

*Ps. gouldi*, Gray.

*Ps. gracilicauda*, Gould.

*Ps. praconis*, sp. n. (see succeeding paper).

## 3. LEGGADINA, subg. n.

Size small. Form of skull normal. Anterior zygomatic plate straight or convex in front as in ordinary murines. Palatal foramina narrow. Pterygoid region peculiar, the parapterygoid fossæ broad and very shallow, scarcely hollowed at all, the ectopterygoids bordering it externally low, flat, not or scarcely raised up above the level of its floor; entopterygoids also much lower and less projecting than usual.

Molars very variable, but always with a well-marked antero-internal cingular cusp on  $m^1$ . In *P. delicatulus* this is small, in *hermannsburgensis* intermediate, and in *forresti*

\* In my paper of 1906, "On the Generic Arrangement of the Australian Rats hitherto referred to *Conilurus*," this species, following Gould, was erroneously united with "*C. apicalis*" in the new genus *Leporillus*, *apicalis* being chosen as the type. As a result of this mistake, the generic description of *Leporillus* is not altogether applicable, and (an accidental *lapsus calami* being also corrected) may run as follows:—Molars, as in *Notomys*, without postero-internal cusps. Skull very much as in *Conilurus*. Hind feet normal, with the usual six pads.

very large. In proportion to the development of this cusp the laminae are themselves tilted backwards internally, while the outer cusps are reduced in size.

Type. *Pseudomys* (*Leggadina*) *forresti* (*Mus forresti*, Thos.).

Other species :—

*Ps. delicatulus*, Gould.

*Ps. hermannsburgensis*, Waite.

*Ps. patrius*, Thos. & Dollm.

#### 4. *GYOMYS*, subg. n.

Size small. Skull as in *Leggadina*.

Molars quite normal; no anterior cingular cusp on  $m^1$ , and the molar laminae quite of the usual murine shape and position.

Type. *Pseudomys* (*Gyomys*) *novæ-hollandiæ* (*Mus novæ-hollandiæ*, Waterh.).

Other species :—*Ps. albo-ciurens*, Gould, and subsp. *squalorum*, Thos. *Ps.* (*Gyomys*) *glaucus*, sp. n. (described in succeeding paper).

### LXV.—New Australian Muridæ of the Genus *Pseudomys*. By OLDFIELD THOMAS.

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IN working out the genera of Australian Muridæ the following new species have come to light :—

#### *Pseudomys auritus*, sp. n.

*Hapalotis murinus*, Gould, Mamm. Austr. vol. iii. pl. vii. (1855); nec id. P. Z. S. 1845, p. 78.

A large species with long ears.

Size largest of the genus. General appearance very much as in *Ps. lineolatus*, but the ears conspicuously longer. Fur long, soft, and thick; the wool-hairs of back about 14 mm. in length, the longer hairs surpassing them by about 4.5 mm. General colour dark fawn-grey, heavily darkened on the back by the blackish tips of the longer hairs. Under surface soiled buffy, the hairs dark slaty for two-thirds their length, their ends "pinkish buff"; no line of demarcation laterally. Ears very long; proectote black with greyish-white tip, sparse hairs of metentote also greyish white. Hands and